

January 19, 2012

Nancy Rumrill,
Groundwater Office Representative, Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Re: Curis Resources, Inc. Pending UIC Application No. AZ396000001

Dear Ms. Rumrill,

By way of update, since our last informal comment letter of September 29, 2011, there has been much activity on the local front regarding the proposed mine, activities of which you may not be aware. The Town of Florence Planning and Zoning Commission held two lengthy public hearings on Curis' proposed General Plan Amendment—a prerequisite to the zoning changes Curis needs to obtain an Aquifer Protection Permit. The first hearing (September 15, 2011) attracted approximately 300 people and went well into the early morning hours of the following day. The second hearing (October 6, 2011) was once again filled to capacity with more interested members of the public standing outside in the cold or nearby in overflow rooms. At this hearing, 137 Florence residents submitted comment cards in opposition to the proposed mine. At the conclusion, the Commission did not forward a favorable recommendation to amend the Town's General Plan on either of Curis' two applications to Town Council. Despite Curis' later attempts to withdraw their General Plan Amendment application prior to a scheduled Town Council hearing on November 7, 2011, the Town Council denied their request for withdrawal on their main application and held a hearing on the matter. At this hearing 124 Florence residents submitted comment cards in opposition to the project, while only 34 Florence residents submitted cards in support. In addition, Johnson Utilities, which provides water to the area also appeared in opposition and voiced many valid environmental concerns. At the conclusion of the hearing, the Florence Town Council unanimously denied Curis' requests by a 7-0 vote. Notably, each council member publicly stated that the proposed mine was contrary to the best interests of Florence residents in the short or long term and that the mine would negatively alter the character of Florence in a dramatic fashion.

This did not, however, end the local community's input and the Town's desire to communicate their message that a Mine does not belong in the middle of a master planned residential community. Instead, prompted by the significant public outcry against the Mine, the Town Council passed Resolution No. 1324-11 (a copy of which is attached), expressing strong opposition to the Mine and pronouncing as ill-advised, a mine along the Gila River in close proximity to populated areas and a vital aquifer. These conclusions were made after the Town, itself a water provider with designated Assured Water Supply status and a Designated Management Agency with Clean Water Act implementation and enforcement authority, considered the health and safety and environmental risks of in-situ mines and the

unacceptable economic impacts associated with the legacy of in-situ mining. Further, the Town expressed its view that Curis' mine was inconsistent with the guiding principles and overall vision of the voter-approved Florence General Plan 2020. This Resolution expressly urges all reviewing agencies to reject any applications which would aid the mine in locating within the Town boundaries of Florence.

EPA should consider these local activities during its analysis and review of Curis' UIC aquifer exemption and Class III permit application. In an appeal of EPA's UIC aquifer exemption actions in *Western Nebraska Resources Council v. EPA*, the 8th Circuit Court of Appeals recognized a number of relevant factors in addition to the specific regulatory criteria for aquifer exemptions. *Western Nebraska Resources Council v. EPA*, 793 F.2d 194 (8th Cir. 1986). These additional relevant factors were: (1) public comment, (2) the impact on the environment in general and on surrounding sources of drinking water in particular, (3) the impact on human health, (4) restoration of the mining site and removal of contaminants from the exempt aquifer area, and (5) reasonable alternatives to the exemption and alternatives to the proposed type of mining. *Id.* Similarly, when reviewing Curis' proposed UIC aquifer exemption and permit application, EPA should consider these same factors. Recent local government developments over the last four months bear upon these judicially-recognized factors.

While examining the impact on human health and the environment as a whole, EPA should consider impacts on surrounding sources of water and whether mining "would enhance the long-term productivity of the ... [mineral] field while not adversely affecting the long-term productivity of the area as a whole." *Id.* The long-term productivity of the area as a whole is especially an issue with Curis' application and is the crux behind the recent decisions and pronouncements of the Town of Florence.

The area encompassing the majority of Curis' property and surrounding the proposed mine is planned, and consequently zoned, for uses that would not be enhanced and in fact, would be harmed by a mine and even a mining pilot project. As you are aware, the proposed mine is located in the geographic center of the Town of Florence and within the middle of the growing Merrill Ranch Master Planned Community where nearly 2,000 homes have been sold and constructed by Pulte Homes to date. Consequently, residential neighborhoods now flourish within 1.5 miles of the proposed mine with more homes planned within less than one-half mile. As recognized in the Town's General Plan and the Merrill Ranch Master Plan, the area's long-term productivity is in residential, light commercial, and other such uses. Inconsistency with the area's long-term plans was at the heart of the Town's recently adopted Resolution and the Town Council's remarks made during their denial of Curis' General Plan amendment request. This is not just a local government issue; but instead as recognized by the 8th Circuit in *Western Nebraska*, consideration of these events is relevant to EPA's examination of Curis' request for an aquifer exemption and UIC permit.

Additionally, as previously discussed in our September 2011 informal comment letter, EPA should consider the potential harm to nearby drinking water wells and other wells, including existing and future Johnson Utilities drinking water wells. To avoid the risk of redundancy, we refer you to our earlier discussion on area groundwater communication in our Sept. 29, 2011 letter and Attachments D and H. Should Curis obtain permitting approval, it would be attempting a largely untried solution mining technique in a groundwater source used by thousands of downgradient residents and businesses. If Curis fails to control the chemicals it will be pumping into that groundwater—a very real possibility given the experience at other in situ leach mines—the resulting damage could take decades to repair.

Finally, there is a very real and present risk posed by the numerous and often undiscovered core holes drilled by previous property owners. Curis' property is riddled with core holes, wells, and

underground mine works that could serve as conduits for leaching solutions to move horizontally and vertically outside of the area of the aquifer designated for ISL mining. BHP previously experienced the dangerous effects of undiscovered core holes when, in 1999, they reported to ADEQ that undiscovered core holes caused high contaminant results in their pilot project. The harm to nearby wells is simply too great to subject to the risky operation proposed by Curis. The second and third factors support denial.

As to the first *Western Nebraska* factor, although EPA will of course, solicit its own public comment and hold public hearings, EPA should also consider the overwhelming public comment already levied against the proposed mine. The Town's administrative record reflects significant public and Florence resident opposition to the mine. At an October 6, 2011 Planning and Zoning Commission hearing, 208 people submitted comment cards on the mine related item. Public records reveal that more than 6 times as many Florence residents submitted cards opposing the mine as compared to those supporting the mine (137 residents in opposition versus only 22 residents in support). At the November 7, 2011 Town Council hearing, 252 people submitted comment cards on the mine related item. Public records reveal that nearly four times as many Florence residents submitted cards opposing the mine as compared to those supporting the mine (124 residents in opposition versus only 34 residents in support). As can be reviewed through the administrative records, many of the speakers in support of the mine at both hearings were paid employees of Curis, paid consultants, mining lobbyists, and out of town residents with no vested interest in Florence. Speakers in opposition to the mine were, on the other hand, predominantly Town residents and area stakeholders. In addition to the overwhelming opposition from Town of Florence residents, nine separate landowner groups, who own more than 16,000 acres of land surrounding the mine, have written letters of opposition urging denial of this project. To put this in another context, the aforementioned nine landowners represent virtually all of the privately owned land within miles of the proposed mining project (north of the Gila River). Furthermore, Johnson Utilities, Arizona's third largest water provider currently servicing more than 80,000 residents in the area, has also expressed strong opposition to the project and a recommendation for denial by the Town of Florence and all governing agencies involved in the permitting of the project. These facts are reflected in the Town's resolution and the administrative record associated with the General Plan case.

Groundwater restoration, the fourth factor considered by the court and EPA, is highly unlikely to occur in Curis' case. Our review of in-situ leach mining operations in this country has failed to reveal a single example of an operator who was able to restore groundwater to pre-mining conditions once the ore reserves were exhausted. A close review of other in-situ mining operations reveals a history of spills, well failures, and contaminated groundwater. At each of those mines, the mine operator promised to do no harm to the environment and accepted permit conditions requiring restoration of soils and groundwater to pre-mining conditions. But instead of restoring groundwater, mining operators secured amended permit conditions and lowered groundwater standards, as regulatory agencies were forced to accept a degraded aquifer in the face of the practical reality that no amount of pumping, treatment, or money would ever restore groundwater to pre-mining conditions. These issues are discussed in a BHP report addressed to ADEQ (dated March 1999) on this very site where a previous pilot test was conducted from October 1997 to February 1998. Records associated with the pilot test reveal 26 separate exceedances of applicable groundwater quality standards, and 9 of the 31 wells were reported to have had at least one exceedance. Even after permit limits were revised to be more lenient in several cases, various contaminants continued to exceed the new permit limits. Most recently in 2005, groundwater in well O19-GL demonstrated high gross alpha (radiochemical) levels exceeding both permit limits and the Aquifer Water Quality Standard. To date, there has been no data, evidence, or follow up investigations by the prior mining operator (BHP) or Curis to show that groundwater at the

Florence site can be restored to the appropriate water quality standards. These unfortunate results have less impact in the sparsely populated open range of Wyoming or undeveloped areas of south Texas. They will have major impacts, however, in the heart of Florence. This will be even more egregious because Curis has promised residents that after mining the land will be suitable for residential and commercial uses. Even if groundwater restoration could be achieved, Curis has proposed inadequate financial assurance to cover restoration costs and has grossly underestimated the time and effort required to achieve restoration. We urge you to recognize that restoration is improbable, protect the public, and deny Curis' requested exemption.

In conclusion, Curis' proposed mine is not appropriate for this location, given the incompatibility with existing and future development and proximity to the drinking water source that currently serves area residents. The regulatory criteria and recognized relevant factors dictate against Curis' requested exemption. We ask that EPA deny Curis' requested UIC aquifer exemption and Class III permit.

Sincerely,

A handwritten signature in black ink, reading "Janis L. Bladine". The signature is fluid and cursive, with the first name "Janis" being more prominent and the last name "Bladine" following in a similar style.

Janis L. Bladine

Copies: David Albright, Manager, USEPA Region 9
Henry Darwin, Director, ADEQ
Himanshu Patel, Town of Florence, Town Manager
Wayne Costa, Town of Florence, Public Works Director
Mark Eckhoff, Town of Florence, Community Development Director
Chris Thomas, Squire Sanders
Justin Merritt, Southwest Value Partners, Senior Asset Manager
Paul Gilbert, Beus Gilbert

Attachment (1)